SCHOOL AND SOCIETY

EDITED BY
J. McKEEN CATTELL, W. CARSON RYAN, JR., AND RAYMOND WALTERS

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SCHOOL AND SOCIETY

Volume XVI SATURDAY, OCTOBER 14, 1922 Number 407

EDUCATIONAL AND SCHOOL SCIENCE[1]

I

THE Educational Science Section of the British Association attains its majority this year; and as a member privileged to assist in its birth, and associated with it in one capacity or another throughout its life, I find it difficult to resist the temptation to survey its growth and manifold activities with the object of making performance during the years of adolescence the ground of promise for the future. But though this may be an appropriate theme to expound when an organization has passed naturally through the various stages from infancy to maturity, it is not so apt on the present occasion; for, trite as is the simile, it is true to say that, like Pallas Athene from the head of Zeus, this section sprang into being fully grown and clothed, and its form to-day is much the same as it was twenty-one years ago.

Those of us who have been constant votaries at the new shrine then erected can recall many offerings which the goddess of wisdom would approve—seeds and flowers and fruits from the extensive and diversely fertile fields in which educational work is carried on. We have also seen a succession of distinguished presidents, too many of whom, however, have taken only a transient part in the activities of the section, coming before us for a single session and then passing from our view. The other sections of the Association are schools in which scientific workers graduate and from which they are never entirely separated, whether they reach the dignity of the presidential chair or not. For some reason it is, perhaps, to be regretted that our section has not hitherto been so self-sufficing in the supply of presidents, but fertilization from other fields has its advantages, and our visitors have always brought us stimulating principles of growth, so that I follow them with much diffidence, particularly as this is the first time on which one who has been Secretary and Recorder of the section has attained to the honor of the presidency.

The section was established to consolidate the claims staked out by workers in different educational provinces, and promote common interest in their development as a whole. As Professor H. E. Armstrong explained at the opening meeting, it was proposed to devote attention to education in all its branches with the object of introducing scientific conceptions into every sphere of educational activity; that is, conceptions which imply such exact and profitable treatment of a subject as should come from full knowledge. Educational science signifies, however, much more than methods of teaching or the theory of the curriculum. It involves conditions of physical, mental, and moral health, with their manifold types and variations, and the determination of the most appropriate, and therefore most effective, factors of growth at every stage of development. In its present stage educational science must be largely empirical, but in this respect it does not differ from meteorology, for ex-

[1] Address by the President of the Section of Educational Science of the British Association for the Advancement of Science.

ample; and the laws which govern the perpetually varying contents and conditions of a child's mind are not much less precisely known or applied than those by which atmospheric changes are determined. The essential attribute of all scientific investigation is the spirit of discovery, and the standards by which the results are judged are not necessarily those of practical application. Teachers too often forget this when contributions to knowledge of mental processes are brought before them. Like engineers and medical practitioners, they expect science to provide things which are directly useful, whereas their duty is to discover possibilities in results achieved. Their own work is practical or clinical, and as such may help to test structures or prescriptions, but teaching is an art rather than a science, though like all arts its advances are most secure when they are founded upon scientific principles.

It is not necessary, however, to discuss whether research in education belongs to pure or to applied science, whether, to use the distinction now adopted in other departments of progressive knowledge, it is scientific or industrial. It is scientific in so far as it follows scientific methods, reveals new facts, arrives at clear conclusions, and suggests consequences which are afterwards confirmed in application. Fortunately, it is possible to do these things without possessing complete knowledge. Hipparchus was able to determine the periods of revolutions of the planets with remarkable accuracy, and his values differ very slightly from those accepted at the present day, but it was not until eighteen hundred years later that Newton discovered the law of gravitation by which the movements of these and other bodies in the solar system are governed. So Plato and Aristotle had conceptions of education and the theory of conduct which are as true to-day as when they were expounded, because, though the conditions are different, the fundamental human qualities which it is desired to stimulate and make permanent for life are the same.

While, however, we very willingly pay tribute to the wisdom of the intellectual giants of the past, we should not let it control present thought or future policy. The scheme of education outlined by Plato in his "Republic" was designed for the training of gentlemen of means and leisure, and it left out of account altogether everything of the nature of manual occupation or professional equipment. It was a class education adapted to the needs and circumstances of the time, and its interest to us is chiefly academic or historic. Plato and other Greek thinkers were mostly concerned with education as a moral or civic process throughout life, and the school was only one stage affecting continuous development. It was believed that to apprehend scientific principles and laws, or appreciate philosophic reasoning, required mature minds; therefore the serious study of these subjects was reserved for manhood and had no place in the school.

Modern science differs greatly from what was known to the Greeks, particularly in the use of experimental methods of inquiry; and if Plato were now constructing an educational system adapted to existing needs he would no doubt readjust its position in the curriculum. Yet there is sound psychology in the postponement of the consideration of laws and systems to late stages of a school course. Knowledge begins with sense perception, and intelligent appreciation of laws expressing general relationships or affinities, or the recognition of the place of such laws in a system, can be expected only from gifted

pupils. It is the business of education to promote the right adjustment between the developing human organism and its surroundings, and this implies that the nourishment provided at all stages of growth should be not only such as supplies the needs of the moment, but also builds up strength to live a full life under the conditions of the times. Whether we consider the practical education or training by which uncivilized man learns to supply his needs, the humanistic conceptions of ancient Greece, medieval education, or modern systems, the aim is the same, namely, to create worthy members of particular social fabrics—to adapt people to meet the necessities of life and respond to the best influences of existing circumstances. It is true that Kant thought children should be educated not for the present but for a possibly improved condition of man in the future, yet he himself advocated the cultivation of natural ability to meet practical needs of life.

Education may, therefore, be defined as deliberate adjustment of a growing human being to its environment; and the scope and character of the subjects of instruction should be determined by this biological principle. What is best for one race or epoch need not be most appropriate for another, but always the aim should be to give the pupil as many points of contact with the world around him as may be profitably developed during his school career. This does not mean, of course, that his vision is to be confined to contemporary necessities or his thoughts to provincial or even national fields. The resources available for his instruction and guidance comprise the wisdom and experience of the past as well as the power of the present, and in their extensive and varied character they now provide teachers with educational opportunities richer and fuller than those of any other period of the world's history. Literature and art form noble domains of the heritage into which the child of to-day is born, but they were mostly planted long ago, and their shapes have not been altered much in modern times. Science has, however, transformed the whole landscape entrusted to it, and the realm of its productivity is continually extending. It is a kingdom potent with possibilities for good or evil—an inheritance which cannot be renounced—and to let any of our children grow up unfamiliar with their entailed possession is to neglect an obvious duty.

The essential mission of school science is thus to prepare pupils for civilized citizenship by revealing to them something of the beauty and the power of the world in which they live, as well as introducing them to the methods by which the boundaries of natural knowledge have been extended and Nature herself is being made subservient to her insurgent son. We live in a different world to-day from that of mediæval times, when the *trivium* of grammar, logic, and rhetoric, with the *quadrivium* of arithmetic, geometry, music and astronomy, comprised the subjects of a complete education in the sciences as well as in letters—different indeed from what it was only a century ago. The influence of science is now all-pervading, and is manifest in all aspects of human activity, intellectual and material. Acquaintance with scientific ideas and methods and applications is forced upon everyone by existing circumstances of civilized life with its facilities for rapid transport by air, land, or sea, ready communication by telephone or telegraph, and other means by which space and time have been brought under control and man has assumed the mastership of his physical and

social destiny. Science permeates the atmosphere in which we live, and those who cannot breathe it are not in biological adjustment with their environment—are not adapted to survive in the modern struggle for existence.

School instruction in science is not, therefore, intended to prepare for vocations, but to equip pupils for life as it is and as it soon may be. It is as essential for intelligent general reading as it is for everyday practical needs; no education can be complete or liberal without some knowledge of its aims, methods, and results, and no pupil in primary or secondary schools should be deprived of the stimulating lessons it affords. In such schools, however, the science to be taught should be science for all, and not for embryonic engineers, chemists, or even biologists; it should be science as part of a general education—unspecialized, therefore, and without reference to prospective occupation or profession, or direct connection with possible university courses to follow. Less than three per cent. of the pupils from our State-aided secondary schools proceed to universities, yet most of the science courses in these schools are based upon syllabuses of the type of university entrance examinations—syllabuses of sections of physics or chemistry, botany, zoology, and so forth—suitable enough as preliminary studies of a professional type to be extended later, but in no sense representing in scope or substance what should be placed before young and receptive minds as the scientific portion of their general education. Such teaching excuses the attitude of many modern Gallios among schoolboys caring "for none of those things." The needs of the many are sacrificed to the interests of the few, with the result that much of the instruction is inept and futile whether judged by standards of enlightenment or of stimulus. Exceptional pupils may profit by it, but to others, and particularly to teachers of literary subjects in the school curriculum, it often appears trivial or sordidly practical, and is usually spiritless—a means by which man may gain the whole world, but will lose his soul in the process.

This impression is not altogether unjust, and the teaching of recent years has tended to accentuate it. The extent of school science is determined by what can be covered by personal observation and experiment—a principle sound enough in itself for training in scientific method, but altogether unsuitable to define the boundaries of science in general education. Yet it is so used. Every science examination qualifying for the First School Certificate, which now represents subjects normally studied up to about sixteen years of age, is mainly a test of practical acquaintance with facts and principles encountered in particular limited fields, but not a single one affords recognition of a broad and ample course of instruction in science such as I believe is required in addition to laboratory work. I have not the slightest intention or desire to suggest that practical work can be dispensed with in the teaching of any scientific subject, but I do urge that it becomes a fetish when it controls the range of view of the realm of natural knowledge capable of being opened for the best educational ends during school life.

Advocates of both literary and scientific studies now agree that science should be integrally and adequately represented in the educational course of all pupils up to the age of sixteen, and the Headmasters' Conference has subscribed to this view, as well as suggested the scope of the course, in the following resolutions:

(1) That it is essential to a boy's general education that he should have some knowledge of the natural laws under-

lying the phenomena of daily life, and some training in their experimental investigation.

(2) That, in the opinion of this Conference, this can best be ensured by giving to all boys adequate courses of generalized science work, which would normally be completed for the ordinary boy at the age of sixteen.

(3) That, after this stage, boys who require it should take up science work of a more specialized type, while the others should for some time continue to do some science work of a more general character.

As indicated in these resolutions, it is now generally recognized by educationalists that up to the age of about sixteen years there should be no specialization in school studies. The First School Examination was organized with this end in view, and seven examining bodies have been approved by the Board of Education to test the results of instruction given in (1) English subjects, (2) languages, (3) mathematics and science, which constitute the three main groups in which candidates are expected to show a reasonable amount of attainment. The number of candidates who presented themselves at examinations of the standard of First School Certificates last year was about 42,000; and of this number, 12,500 took papers in sections of physics, 13,000 in chemistry, 11,400 in botany, 5,000 physics and chemistry combined under experimental science, 113 natural history of animals, 31 geology, and 3 zoology.

These numbers may be taken as a fair representation of the science subjects studied in most of our secondary schools, and they suggest that general scientific teaching is almost non-existent. Botany is a common subject in girls' schools, but the instruction in science for boys is limited to parts of physics and chemistry. The former subject is usually divided into mechanics and hydrostatics; heat; sound and light; and electricity and magnetism; and candidates are expected to reach a reasonable standard in two of these sections. They may, therefore, and often do, leave school when their only introduction to science is that represented by the study of mechanics and heat, and without the slightest knowledge of even such a common instrument as an electric bell, while the ever-changing earth around them, and the place of man in it, remain as pages of an unopened book. They ask for bread, and are given a stone. General science covering a wide field is practically unknown as a school subject, and even general physics rarely finds a place in the curriculum because questions set in examinations are, to quote from the Cambridge Locals Regulations, "principally such as will test the candidate's knowledge of the subject as gained from a course of experimental instruction." This condition reduces the range of instruction in such a subject as physics to what can be covered in the laboratory, and makes a general course impossible; for time and equipment will not permit every pupil to learn everything through practical experiment. Reading or teaching for interest, or to learn how physical science is daily extending the power of man, receives little attention because no credit for knowledge thus gained is given in examinations.

One or two examining bodies have introduced general science syllabuses covering the rudiments of physics and chemistry as well as of plant and animal life, but even in these cases most of the subjects must be studied experimentally, and no place is found for any other means of acquiring knowledge. The result is that few schools find it worth while from the point of view of examination successes to attempt to cover such schemes of work. Moreover, no clear principle can be discerned by which

the syllabuses are constructed. General science should be more than an amorphous collection of topics from physics and chemistry, with a little natural history thrown in as a sop to biologists. It should provide for good reading as well as for educational observation and experiment; should be humanistic as well as scientific. The subject which above all others has this double aspect is geography; so truly, indeed, is this the case that in the First School Examinations it may be offered in either the English or the Science group. Practically all the subjects of a broad course of general science are of geographical significance, inasmuch as they are concerned with the earth as man's dwelling-place, and the scene of his activities. Rightly conceived, geography can be made the earliest means of education as both Comenius and Locke regarded it, and it can be used as the unifying principle of all the generalized scientific instruction in schools. It is now much more than travel stories of the type of Sir John Mandeville's mediæval miscellany, or mere lists of capes and rivers, countries and cities. It provides interesting subjects for laboratory exercises and field work, and the results of observation and experiment are seen to be of use in understanding what is going on in the earth as the result of both natural and human agencies. A school course which would cover all the science required for the study of geography conceived as a branch of knowledge concerned with the natural environment of man and the inter-relations between him and those circumstances would not only be educational in the broadest sense, but would also be the best groundwork for effective teaching of geography, history, and other humanistic studies. It would make science a natural part of a vertebrate educational course instead of specialized and exclusive as it tends to be at present.

There is very present need for the reminder that science is not all measurement, nor is all measurement science. Observation also is not merely looking at things, but examining them with a seeing mind and clear purpose. School science to-day, however, is almost entirely concerned with measurement, and pupils will cheerfully record that they observed what they could never possibly have seen (as, for example, the production of an invisible gas), while they continually carry out experiments which to them have no other purpose than that of occupying their time, or to provide them with details demanded by examination questions. In the great majority of secondary schools science signifies chiefly quantitative work in physics and chemistry—laboratory exercises and lessons bearing upon them—and rarely is any attempt made to show the pupils what a wonderful world we live in, or what science has done, and is doing, for them in their everyday life. Much of the work described as physics really belongs to mensuration, and has no claim upon the time devoted to science, though it helps to fix instruction in arithmetic or other branches of school mathematics. There is, indeed, no virtue in measuring and weighing in the absence of intelligent appreciation of the objects for which such operations are performed, or of interest in them.

In the usual course of physics, from fundamental measurements and mechanics to heat, possibly with light and sound and magnetism and electricity to follow, though relatively few pupils get beyond the heat stage, natural or psychological needs are sacrificed to logical sequence. It cannot be reasonably suggested that the order in which these subjects are prescribed has any relation to mental growth, or that the topics selected from them are

such as appeal to early interests. Few pupils of their own volition wish to determine specific gravities, investigate the laws of motion, calculate specific and latent heats, and so on, at the stage of instruction in science at which these matters are usually studied, and from the point of view of educational value most of them would be more profitably employed in becoming acquainted with as wide a range as possible of common phenomena and everyday things—all considered as qualities to stimulate attention instead of quantities to be measured with an accuracy for which the need cannot be seen and by methods which easily become wearisome. The "Investigators" appointed by the Board of Education in 1918 to report upon the papers set in examinations for the First School Certificate were right when they expressed their opinion "that the early teaching of physics has suffered from too great insistence on more or less exact quantitative work, to the neglect of qualitative or very roughly quantitative experiments illustrating fundamental notions." By the prevailing obsession in regard to quantitative work the pupil is made the slave of the machine, and appliances become encumbrances to the development of the human spirit.

RICHARD GREGORY

(To be concluded)

TEACHING AND SUPERVISION OF ELEMENTARY INDUSTRIAL ARTS

OUR present-day educational needs seem to call for instruction which aims (1) to develop the pupil's general and special capacities and (2) to prepare him for the demands which the future is going to make upon him. But it is obvious that the early conception of the rudiments of elementary education, involving some skill in reading, writing, and arithmetic, although still important, will not begin to suffice either in aiding pupils who continue their school work to choose courses more wisely in secondary education, or in helping those who might find it advisable or necessary to leave school with a minimum amount of education to choose their respective procedure more thoughtfully. While it has long since been agreed that, if possible, children should be sufficiently well prepared in school so that they may exercise intelligent judgment in weighing values and in choosing their future courses of study and work, the traditional curriculum has quite frequently failed to furnish those concrete experiences and reliable facts pertaining to the social, the economic, and the larger personal aspects of our most important life occupations, all of which could help to make this possibility a reality.

MAIN EMPHASIS IN OFFERING INDUSTRIAL ARTS ACTIVITIES

This study of the present status of industrial arts teaching and supervision in elementary schools represents a careful investigation of 141 selected public school systems in 19 states. Only the generous aid of teachers, supervisors, principals, and superintendents in collecting and checking these data could have made possible the reliability of the following findings relative to the industrial activities now being experienced by their elementary school pupils (from first to sixth grades, inclusive).

In reporting upon the main reasons for offering industrial arts instruction in their respective schools, the 352 teachers concerned stated their general objectives, which, when collated, were found to be given the following order of importance:

(1) Giving a basis for judgment in the selection and use of products and service.

(2) Developing an appreciation for the economic and social phases of industry.

(3) Gaining general experience in indus-

trial processes to meet pupil's needs and illustrate the industry.

(4) Enriching geography, history, oral and written expression, arithmetic, and other subjects in curriculum.

As might be expected, varying degrees of emphasis are being given to the relative values of construction work and subject-matter by teachers of the six elementary grades in the school systems investigated. Nevertheless, with few exceptions, these 352 teachers report that they recognize the need for having the industrial arts experiences give some attention to each one of the three following closely related elements:

Motor expression as a means of stimulating interest and mental activity, and of developing the muscles and senses to a reasonable degree (dexterity and discrimination);

Information regarding common industrial materials, processes, products, and developments to make pupils conscious of important divisions and relationships in their complex social environment;

Situations involving some understanding of the human factors (problems, conditions, meanings) in the workaday world to encourage thoughtful appreciation of the possibilities for social service and individual expression.

METHODS OF APPROACH TO INDUSTRIAL STUDIES

TABLE I

Showing the Relative Emphasis upon Each Method of Approach to Industrial Studies by 352 Teachers.

Kind of Approach	Number of Teachers	Percentage of Total
Industrial emphasis	190	54 %
Neighborhood emphasis	105	29.7%
Evolutionary emphasis	57	16.3%
Total	352	100 %

The three important methods which these teachers are stressing in approaching their so-called occupational studies may be roughly classified as (1) *industrial*, (2) *neighborhood*, (3) *evolutionary*. Table I shows the number and per cent. of teachers using each method of approach. The teachers who use (1), which is reported more frequently than both of the other methods (in approximately 54 per cent. of the cases), believe that the pupils should understand the industries of to-day and become appreciative users of products and service. The teachers who use (2), which is reported by over 29 per cent. of the cases, insist that it is wrong to have the industrial studies take the pupils beyond the first-hand experiences of the immediate neighborhood or locality. While the teachers who use (3), which represents over 16 per cent. of those questioned, urge that the proper appreciation of our industrial development can be realized only by having the pupils evolve the study from the simple activities of primitive man to the complexities of the present time.

Despite this marked difference of opinion as to the best approach for the study of industrial arts, *94.7 per cent. of these teachers are committed to giving some time to a general understanding of the materials, processes, and problem involved in changing raw materials into more valuable commercial products.* Nearly all of them state, with varying degrees of emphasis, that *the industrial work might well be considered as a means for enriching or vitalizing several of the other school subjects.*

VARIABILITY IN PERIOD OF DIFFERENTIATION IN WORK

Although the method of approach to these industrial arts studies varies somewhat in the different school systems, the majority of the teachers are now making specific attempts to *establish identity between the school experiences and the occupational activities in everyday life.* In fact, over one half of the teachers definitely

state that these reproduced forms of occupational work make strong appeals to the spontaneous interests of their elementary grade children.

A wide range of opinion likewise exists as to the period above the third grade when the work of boys and girls should be differentiated. In the 141 school systems investigated the practices vary decidedly, especially in the fifth and sixth grades. Nevertheless, most teachers seem anxious to offer types of group and individual experiences which will respect all levels of general and semi-specialized abilities. Nearly 41 percent. of the schools reporting state that the industrial arts work is offered in common to girls and boys throughout the first six elementary grades, implying that they are alike in more ways than they are different, although the individual differences and capacities are usually considered in the projects and problems developed. Over 29 per cent. of these schools offer separate courses in the sixth grade, several claiming that the natural differences in the interests and aptitude of boys and girls, even of this age, warrant this differentiation. Approximately 22 per cent. of the schools begin differentiating their industrial arts courses in the fifth grade. However, only 7 per cent. of these schools make any attempt to separate boys and girls for this work below the fifth grade.

METHODS OF PROVIDING INDUSTRIAL EXPERIENCES[1]

In the teaching of industrial arts and related subjects it is not uncommon to observe two widely divergent methods of learning in different elementary schools within the same school system, and even in different classrooms within the same building. Several of the grade and special teachers still follow the traditional method of assuming almost the entire responsibility for originating and announcing the object of the lesson, for making the plans, and for asking the pupils to assist in the execution of these. However, a large majority of the teachers concerned in this investigation report that, whenever possible, they encourage the pupils to set up purposes and to think out and develop plans on their own initiative.

The project-problem method of learning is favored in principle by approximately 91 per cent. of the special and regular elementary school teachers in the 141 school systems studied. This generally recognized method, which has received such wide interpretation recently, preferably involves the conscious setting up of specific purposes by the pupils, the making of plans to realize these purposes, the execution of the plans developed, and, if possible, the appraisal of the results obtained. As would be expected, a considerable difference of opinion exists among these teachers as to the amount of responsibility in purposing and planning which can be profitably transferred from the teachers to the pupils. On the other hand, nearly all of these teachers seriously believe that industrial experiences should not merely limit pupils to either narrow or imposed tasks in handwork, but should offer sufficient opportunity for understanding and appreciating the worth of each activity and interest, as well as for allowing some freedom in meeting the difficulties which arise in developing their own problems. While it is important that the pupils learn to follow directions and to perform conscientiously and accurately those tasks which are assigned to them, it is agreed that these requirements should not be over-empha-

[1] For detailed statements of successfully tried projects see report of Industrial Arts Committee of the National Society for the Study of Education on "Industrial Arts in Our Elementary Schools," distributed by the Manual Arts Press, Peoria, Illinois.

sized to the sacrifice of that development in initiative which makes for the proper expression of personality in either group of individual projects.

It is interesting to note that a large proportion—over 83 per cent.—of the teachers represented by this investigation received no special training for giving instruction in industrial arts in their respective teacher-training institutions. On the other hand, it is encouraging that 127—or approximately 36 per cent. of the total of 352 teachers—report that they have since voluntarily improved their classroom work by becoming familiar with the recent developments in elementary industrial arts instruction through summer courses, extension classes, and the like.

SUPERVISION OF ELEMENTARY INDUSTRIAL ARTS INSTRUCTION

The amount and kind of supervision which exists in connection with the industrial arts activities also differ materially. *Over 88 per cent. of these school systems report that the supervision is merely nominal, in so far as improvement of classroom instruction is concerned.* Teachers report the greatest help and supervisors the best results where the specialists take the attitude of assisting the grade teachers, who naturally should have a better knowledge of their pupils' qualities. While it seems that several of the grade teachers are not sufficiently interested in the actual construction work to develop their own technic along with the pupils, a greater number of those who were not prepared report that they have gradually taken over the responsibilities of giving the entire instruction, thus relieving the specialists for other duties.

Finally, over two thirds of the special teachers and supervisors of industrial arts questioned agree with the large number of classroom teachers that, in general, the attendant skill and the related information acquired through the elementary school period—for pupils ranging from approximately 6 to 11 years, inclusive—are to be justified mainly by resulting growth in thinking power and industrial intelligence. In other words, they are, in the main, quite convinced that *situations, projects, and problems should provide the kinds and qualities of knowledge and skill (or dexterity) which will help pupils to establish those habits and attitude that contribute most to their daily conduct as intelligent consumers and citizens.*

A. H. Edgerton

Public Schools,
Detroit, Michigan

EDUCATIONAL EVENTS

THE PROGRAM FOR AMERICAN EDUCATION WEEK

The complete program for American Education Week, arranged jointly by the American Legion, the National Education Association, and the United States Bureau of Education, has just been made public. The week begins on Sunday, December 3, and continues through Saturday, December 9. Certain topics are set apart for each day, and appropriate slogans are suggested. The program in detail is as follows:

FOR GOD AND COUNTRY

Sunday, December 3, 1922

1. Education in the home.
2. Education in the school.
3. Education in the church.

Slogan—*A Godly nation can not fail.*

Ministers of all denominations are urged to preach a sermon on education, either morning or evening. All communities are urged to hold mass meetings. Requests for speakers should be made to the American Legion posts throughout the country for meetings during this week.

AMERICAN CITIZENSHIP DAY

Monday, December 4, 1922

1. Children to-day, citizens to-morrow.
2. Naturalization for all men and women.
3. Help the immigrants to become Americans.
4. The duties of citizenship.

Slogans—*American all by 1927.*
Visit the schools to-day.

PATRIOTISM DAY

TUESDAY, DECEMBER 5, 1922

1. The flag—the emblem of freedom.
2. Music as a nation builder.
3. Universal use of the English language in the United States.
4. The citizens' duty to vote.

Slogans—*Visit the schools to-day.*
Patriotism is the basis of a happy nation.

SCHOOL AND TEACHER DAY

WEDNESDAY, DECEMBER 6, 1922

1. The necessity of schools.
2. The teacher as a nation builder.
3. The schools' influence on the coming generation.
4. America as an educated nation.

Slogans—*Visit the schools to-day.*
Better trained and better paid teachers, more adequate buildings.

ILLITERACY DAY

THURSDAY, DECEMBER 7, 1922

1. Illiteracy as a blot on our nation.
2. No illiteracy in 1927.
3. A citizen's duty toward the uneducated.
4. No immigration until illiteracy among native and foreign-born is removed.

Slogans—*Let every citizen adopt and teach an illiterate to read and write.*
Visit the schools to-day.

EQUALITY OF OPPORTUNITY

FRIDAY, DECEMBER 8, 1922

1. Equality of opportunity in education for every American boy and girl.
2. Rural schools—City schools.
3. High schools—Colleges.
4. American institutions.

Slogans—*Visit the schools to-day.*
Let all have an equal opportunity for education.
A square deal for the country boy and girl.

PHYSICAL EDUCATION DAY

SATURDAY, DECEMBER 9, 1922

1. Playgrounds.
2. Physical education and hygiene.
3. The great out of doors.
4. The country's need in conservation and development of forests, soil, roads and other resources.

Slogans—*A sick body makes a sick mind.*
Playgrounds in every community.
Athletes all.

ELGIN, ILLINOIS, AND THE INVESTIGATION BY THE NATIONAL EDUCATION ASSOCIATION

LAST spring a woman school principal in Elgin, Illinois, committed suicide, following a bitter school controversy in the course of which this principal, who had been employed in the schools of the city for 26 years, and several others were refused reappointment by the board of education. At the Boston meeting of the National Education Association the unusual situation in Elgin was called to the attention of the representative assembly and that body instructed the field secretary and the director of the Division of Research to make an investigation. These officers went to Elgin in August and made an investigation, and their report was presented to the executive committee of the N. E. A. on September 25.

The committee found that the superintendent of schools in Elgin had held his position for 15 years; that for some reason many of the teachers had grown to dislike the superintendent and to feel that "his influence with the board of education was not conducive to the highest interests of the schools or of the teachers generally"; and that this feeling had culminated in the formation of a local teachers' organization affiliated with the National Education Association. While the report emphasizes that this organization was not a "teachers' union," it nevertheless makes clear that the superintendent and board of education—the latter made up largely of business men in an "open-shop" town—looked upon it with suspicion. When the annual school election drew near, members of the organization, acting on their own initiative, decided that the only way to remedy the situation was to get out and work for the election of a board of education that would not vote for the retention of the superintendent. The school board faction won by a vote of three to one, and re-elected the superintendent with the understanding that he would not seek re-election in 1923. There is no tenure law in Illinois, so the teachers' committee of the board proceeded to make up a list of those it intended to contract with for another year. The report says:

In addition to those offered regular yearly contracts, seventeen teachers were offered monthly

contracts, it being understood that these contracts might be terminated at the end of any month if the conduct of the teachers were not wholly satisfactory to the board. This action was undoubtedly taken in order to hold a whip over these teachers, who were suspected of not being friendly in their attitude toward the superintendent and the board. Six other teachers and eight principals were not offered contracts of any kind. With the exception of two or three who were dropped for other causes, these teachers and principals were recognized as leaders in the open revolt against the superintendent and active supporters of the opposition ticket in the school election.

Members of the board declare that it was the intention of the board not to eliminate all of those from whom contracts were at first withheld, but to call certain of them before the superintendent and the board, and if their attitude and assurances were satisfactory, to give them contracts for another year. Several principals were actually called for an interview, among them Miss Mary Long, principal of the Sheridan School, who had taught in Elgin 26 years and had been principal of this school for 14 years. It seems that this interview was not satisfactory, so far as Miss Long was concerned. It is said that she was in poor health, and had become very nervous and wrought up over the school-board fight. She was naturally greatly disappointed in the outcome, and, brooding over these things, she committed suicide by taking poison.

Of course, the entire city was shocked by this tragedy and excitement ran high. Some of those who had been active in supporting the opposition ticket threatened violence to the superintendent and members of the board. They renewed with determination and insistency their demand that the superintendent, who was conceded to be the bone of contention, should resign or that the board should discharge him. Miss Long's death roused the many citizens of Elgin who had supported the board but who had felt that, to use a phrase often repeated by them in their interviews with us, "the superintendent had outlived his usefulness." These citizens, friends of the board of education, went to the members and urged that the superintendent be asked to resign. Other citizens demanded his resignation and even threatened him. Finally, he offered his resignation to the board to take effect September 1, 1922.

The conclusion of the committee is that the whole unfortunate affair came about because the two parties to the controversy misunderstood each other and misinterpreted each other's motives:

The most regrettable condition and the one which undoubtedly contributed most to bring about the results which followed, is the fact that the superintendent did not have the confidence of a large proportion of his teachers. Whether this was wholly his fault, or whether he was the victim of unfortunate circumstances, is a controverted question, but in either case the result was the same. Because of this condition of affairs he was unable properly to interpret the ideals and purposes of the teachers to the board of education, or to interpret the real motives of the board of education to the teachers.

A failure to give proper recognition to the professional status of the teacher will always prove disastrous to the interest of the children, for it tends to drive out of the teaching profession those most worthy to teach. The tendency in all the best school systems is toward a higher respect for the teacher, and more positive assurance of permanency of tenure on the basis of efficient service.

NEW YORK BOARD OF EDUCATION ORDERS INDEPENDENT SCHOOL SURVEY

Following the action of Superintendent William L. Ettinger, of New York City, in ordering a comprehensive survey made of the schools by committees of superintendents, principals, teachers and other persons within the school system, the New York City Board of Estimate on October 5 granted the request of President George J. Ryan, of the Board of Education, for $25,000 with which to make an independent survey, presumably with the use of outside experts. The money will be placed in the 1923 budget, it was announced, and will be made available after January 1, 1923.

President Ryan, according to the New York *Evening Mail*, informed the Board of Estimate that the money requested would be used to organize a staff of expert investigators and examiners to enable the Board of Education to obtain direct information about the school system. Under present conditions the board is dependent upon reports of the superintendent of schools, principals and other officials of the department.

The Board of Estimate readily granted the $25,000 requested. "And if you need $25,000 more we'll give it to you," Mayor Hylan is reported to have added.

WEEDING OUT COLLEGE INCOMPETENTS

DISCUSSION of college "incompetents" goes merrily on. This is "an opportune moment for raising still higher the already enviable educational standards of Bates College," President Clifton D. Gray writes in his annual report. For the past two years, the president says, he has—

adopted a policy of careful scrutiny of the qualifications of those applying for admission, and he is thoroughly convinced that character and personality should have an even larger place than they now have in determining the availability of candidates for each successive freshman class. One of the most common deterrents to the best results in the classroom is the presence of even an inconsiderable number of students who have no serious purpose in their college work. They are not even ornamental; they are decidedly detrimental. There is, of course, no infallible method of detecting in advance those who mistake a college for a home for the feeble-minded or a psychopathic hospital, and it is even more difficult to dissuade others who assume that a college can run an elementary school for spelling and the rudiments of English grammar in connection with its courses of college grade, but so far as it is possible we propose to direct these misguided applicants to those institutions that will better meet their needs, and reserve our efforts entirely for men and women of serious purpose who are amply qualified to undertake college work.

Attacking favorite slogans of democracy, such as "All men are born free and equal," and "The voice of the people is the voice of God," Dr. George Barton Cutten, in his installation address as president of Colgate University, asserted that "manhood suffrage has been our greatest and most popular failure, and now we double it by granting universal adult suffrage."

The ruling has always been by the few intelligent members of the community or the nation, and in America the aristocracy has always had the "open shop." The training has also been a factor, even if an accidental factor, but the element most lacking has been the moral ideals. Government for the people instead of for the governors must be the keynote of the future, and the task of the colleges and universities is the training of this aristocracy.

That the Roman Catholic colleges do not subscribe to the doctrine that not all men should go to college was indicated by Cardinal O'Connell, of Boston, in a recent address to students of Boston College High School. He said, as reported by the Boston *Transcript:*

It is certainly a very singular phase of this question that some of the educators of the country propose to answer it by a sort of negation or suppression. They point out that the college is an aristocratic affair, and that the fields of learning are not for the common man, but for the aristocracy of brains. Just what that means is a mystery.

A PROPOSED EDUCATIONAL RESEARCH FOUNDATION

THE New York Society for the Experimental Study of Education has undertaken the establishment of an Educational Research Foundation to finance experimental studies in education. In a statement issued last week the officers of the society state:

Modern public education is confronted with many problems which require careful study. There are problems connected with the selection of school sites, the planning and erection of school buildings, the adoption of courses of study, the procedures in class teaching, the maintenance of discipline, the improvement of attendance, the organization and administration of the school, and the articulation of school activities with the interests of the community. Decisions on school questions should not be left to chance. Tradition and opinion should give place to carefully observed and verified facts, but adequate facts are not fully available. There is much need for painstaking, scientific research in education—the type of research that has produced such striking results in the natural sciences and in industry.

The society claims to have the endorsement of numerous educators and the active support of prominent men and women in professional and business life. Among the latter are: George Gordon Battle, Mrs. Sidney C. Borg, Mrs. Joseph G. Deane, Miss Martha Lincoln Draper, Mrs. H. Edward Drier, Glenn Frank, Michael Friedsam, Mrs. James L. Laidlaw, Mrs. Samuel A. Lewisohn, F. J. Lisman, George MacDonald, Arthur L. Livermore, Her-

man A. Metz, James Speyer, Lionel Sutro, Mrs. Joseph R. Swan, Charles L. Tiffany and William G. Willcox, all of whom have agreed to serve as trustees, and Irving T. Bush, Senator Coleman duPont, Walter Frew, James W. Gerard, Charles P. Howland, Darwin R. James, Frank C. Munson, William Church Osborn, William Jay Schieffelin, Mortimer L. Schiff, Francis H. Sisson, Howard C. Smith, Percy S. Straus and Frank A. Vanderlip.

THE BUREAU OF VOCATIONAL INFORMATION

ANSWERING the question "Is there a real demand for the bureau?" in its newly-inaugurated news bulletin, the Bureau of Vocational Information, New York City, shows that in the year 1921 requests for vocational information of many sorts came from 401 cities and towns in every state in the Union, from the District of Columbia, and from foreign countries. Specific questions, the bureau reports, had to do with the following fields of work for women (named in the order of frequency):

Home economics.
Secretarial work.
Social service.
Teaching.
Modern language work.
Personnel work.
Summer work.
Chemistry.
Journalism.
Law.
Advertising and publicity.
Psychology.
Vocational work.
Statistical work.
Business—General.
Department store work.
Medicine and public health work.
Commercial art.
Motion picture work.
Civil service.
Banking.
Bookselling.
Part-time work.
Public speaking.
Dressmaking.
Architecture.
Nursing.
Publishing house work.
Agriculture.
Economic and commercial research.
Industry.
Work in mathematics and physics.
Accounting.
Insurance.
Interior decoration.
Library work.
Work in textiles.
Hotel work.
Recreational work.
Filing.
Actuarial work.
Real estate.
Music.
Horticulture.
Museum work.
Bacteriology.
Engineering.
Student employment.
Educational research.

The purpose of the bureau is described as "to interpret the character and requirement of the working world to women and to the educational institutions in which they are trained." In the office detailed interviews were had in 1921 with about one thousand women seeking vocational information. Requests for information have been received from 174 colleges, including those to which one or more personal visits have been made by members of the staff; from 144 schools, and from 153 organizations, including women's clubs, social organizations, government departments, libraries, commercial organizations, parent-teachers associations, branches of the American Association of University Women and the Young Women's Christian Association, and employment bureaus.

Miss Emma P. Hirth is director of the bureau and Miss Beatrice Doerschuk assistant director.

SMYRNA REFUGEES AT WELLESLEY

PRESIDENT ELLEN FITZ PENDLETON, of Wellesley College, has announced that the college will take as students three of the sixteen women students left alive after the burning of the American Collegiate Institute for Women at Smyrna. The action of Wellesley followed an appeal of the Congregational Board, under whose auspices the Smyrna college was conducted. Tuition, lodging and meals will be furnished.

Wellesley students recently made two special offerings amounting to $450 for Smyrna relief work. The college has maintained a unit of Wellesley women in the Near East for the past four years, doing medical and social relief work, especially among children made orphans during the World War.

EDUCATIONAL NOTES AND NEWS

DR. ROBERT R. MOTON, principal of Tuskegee Institute, sailed on October 4 to attend conferences in Edinburgh, Glasgow, and London at which African problems will be discussed. Dr. Moton will speak before the Scotch Churches Missionary Congress in Edinburgh on missionary and educational activities in Africa, and he will also be a speaker before the Christian Endeavor Convention in Glasgow and the British Institute of International Affairs in London.

DR. L. THOMAS HOPKINS, formerly connected with the public schools of Marblehead and Amesbury, Mass., has been appointed associate professor of education in the University of Colorado.

DR. JOHN FINLEY, of the editorial staff of the New York *Times*, was elected a member of the Phi Beta Kappa Senate at the meeting in Cleveland in September and not President Ferry of Hamilton College as stated in the September 23 issue.

EDWARD D. ROBERTS, since 1912 assistant superintendent of schools at Cincinnati, Ohio, is absent on leave, serving during the first term of the present academic year as professor of education in the University of Nevada.

SYDNEY M. BROWN, a graduate of Bowdoin College and a bachelor of arts and master of arts graduate of the University of Oxford, has been appointed assistant professor of history and political science at Lehigh University.

DR. JOSEPH SWAIN, former president of Swarthmore College and of Indiana University, and Mrs. Swain, are spending a year in Japan and China.

CHARLES F. BAUDER, head of the industrial art department of the Central High School, Philadelphia, has been elected director of vocational education in the Philadelphia public schools, to succeed William C. Ash.

A. C. PARSONS, formerly professor of secondary education at the University of Oklahoma, has taken up his duties as superintendent of the Oklahoma City schools, succeeding Superintendent J. A. Whiteford, resigned.

SUPERINTENDENT CHARLES A. LEE, of Butler, Mo., nominated at the Missouri Democratic primary in August for state superintendent of schools, is said to be the youngest candidate ever nominated for the position. He is 31 years old.

THE new dean of Bryn Mawr College is Eleanor Bontecou, a graduate of the college and of the New York University Law School.

DR. ELMER PIKE has been appointed medical director of the University of Vermont, to succeed Dr. David Marvin.

DR. THEOPHILE MEEK has been appointed professor of Semitic language and Biblical literature at Bryn Mawr College, to succeed Dr. George A. Barton, who has accepted appointment at the University of Pennsylvania.

AMONG those who will assume teaching work again this year at Harvard University after a period of absence will be Professor J. D. M. Ford, who held last year the exchange professorship to France; Professor Arthur E. Kennelly, who held the French exchange professorship in engineering established by a committee of American universities; Professors Robert H. Lord and William G. Howard, who were exchange professors to the western colleges; Dean Charles H. Haskins of the Graduate School of Arts and Sciences, Dean Roscoe Pound of the Law School, Professors Ralph B. Perry, Clifford H. Moore, Charles Palache and R. A. Daly, and Professor Henry A. Yeomans, formerly dean of Harvard College, who will return to a professorship of government, giving part of his time as tutor in history, government and economics. Professor David Gordon Lyon's retirement from the Hancock professorship took effect on September 1, as did that of Dr. William T. Councilman from the Shattuck professorship at the Medical School. Both men are now professors emeriti,

Professor Lyon's successor being Professor W. R. Arnold and Dr. Councilman's being Dr. S. B. Wolbach.

Professor Hiram G. Tucker, of Wheaton College, Norton, Mass., died October 5, aged 71 years. He was head of the department of music at Wheaton for 45 years and for 55 years was accompanist and organist of the Handel and Haydn Society.

Mayor Hylan presented the medals to pupils of the New York City Schools who were winners in the prize essay contest on fire prevention conducted by the New York Fire Department, the presentation exercises taking place at City Hall on October 8.

In an address before the American Bankers Association in New York City last week, Alvin P. Howard, president of the Iberian Securities Corporation, declared that the teaching of thrift should be made a part of the school curriculum "in order to be understood, digested and taken away for permanent use."

Contributions and pledges totaling $60,000 were made by the officers and faculty of the Philadelphia College of Pharmacy for the purchase October 1 of the site at Forty-third Street and Woodland Avenue, West Philadelphia, for a new group of college buildings. A country-wide effort among alumni and friends will now be made to raise the money to erect the buildings.

The New York City Board of Education has adopted a resolution asking the state commissioner of education to seek passage of a law at the next session of the legislature abolishing secret societies in the high schools of the state. Commissioner Harry B. Chambers, chairman of the board's law committee, has submitted a report which states that high school principals held the opinion that such societies "form in the school a little aristocracy with its snobbery and favoritism and discrimination" and should not be permitted to exist.

Press dispatches dated West Frankfort, Ill., state that nearly 100 elementary school teachers who have not received any pay abandoned their classes September 27 and sent 3,800 school children home for an unexpected vacation of undetermined duration. The schools are in two townships, Dinning and Frankfort. The action of the teachers resulted from the defeat by the voters of a $64,000 bond issue, designed to defray a school deficit and to pay teachers' salaries. The issue was defeated by 633 votes. The teachers said they would return to their classes as soon as money was provided to pay salaries.

The Student Council of Lafayette College has passed a resolution abolishing paddling and other forms of hazing, following the injury of a freshman who was hazed by sophomores. President G. L. Mackintosh, of Wabash College, announced on September 26 that in the future all class fights between sophomores and freshmen at the college would be prohibited. This action came after several students were severely hurt in the annual class "scrap."

According to a recent statement of the National Board of Fire Underwriters, schools and colleges of the United States lost more than $26,000,000 worth of property by fire in the five years from 1916 to 1920. The loss for 1920 was nearly six and one half millions, an increase of more than a million over the loss of 1919. The causes of many of these fires could not be learned. The known sources are listed by the National Board in this order: First, stoves, furnaces, boilers and their pipes; second, electrical appliances; third defective chimneys and flues. "Matches and smoking seem to result in as many fires as ever, causing an average damage of about $200,000 a year."

At a meeting of the National Council of Catholic men held recently in Washington a resolution was adopted appealing to Catholic laity through the country to support the religious schools and aid in acquainting all in their purposes.

The Associated Press reports that, according to the newspaper *Tevkid Efkiar*, the official organ of the Kemalists, the Council of Ministers has refused to grant permission for Americans to establish any more schools in Anatolia. This measure does not affect the existing American colleges at Tarsus and Marsivan, and other missionary schools in the interior.

In a recent address at Columbus, Ohio, Secretary of Labor Davis declared that "thirty

million American children . . . face in our schools a false learning, an education that will not fit more than one of ten of them for the places they must fill in life. But more portentous yet looms the problem of the child in industry. Approximately a million and a half American boys and girls, of school age, are today thrown beneath the wheels of the juggernaut of industry, pressed to labor before their time, doomed to the dreary drudgery of mine and mill and factory by economic necessity. They face a hopeless future. Before them stretches the treadmill of unremunerative labor with its few years of heart-breaking, soul-breaking toil, and at the end—a grave. Here, if anywhere, we face a real danger to the republic."

CONFLICTING tendencies in present-day teaching of English in schools and colleges of the United States are discussed by Charles Robert Gaston, president of the National Council of Teachers of English, in an editorial in the current issue of the *English Journal*. President Gaston declares that, "in the conflict concerning the use of projects as opposed to the assignment of exercises in composition unrelated to life-activities, the council stands for the social point of view." He says:

Wherever two or three alert teachers of high school English are gathered together in the United States, there you will hear discussion of ways and means for enlisting the whole activity of the boys and girls in the development of their power of expression through speech and writing. There is no divine sanctity in such shibboleths as "socialized recitation" or "project," but it may safely be said that the spirit behind both of these has begun to pervade the teaching of English throughout the land. In just one field of English teaching there should be more attention to this point of view, and that is among the teachers of English in the colleges. This may be said with some assurance, even though it is recognized that there are many college teachers of English who are in the forefront in recognizing the social point of view in English composition.

ERNESTO FLETES, JR., a twelve-year-old boy from Santa Barbara, Honduras, has arrived in the United States to start a campaign to establish scholarships for Honduran boys in American schools.

IN a communication to the *New York Times* Robert T. Hill says:

Uncertainty in the minds of many as to the direction that the workers' education movement in America will take is such that recent developments at Syracuse, N. Y., are peculiarly suggestive. Representatives of the State Department of Education and the Workers' Education Bureau of New York were privileged to act as liaison officers, so to speak, between representatives of the Central Trades and Labor Assembly and faculty members of Syracuse University. The director of university extension teaching at Syracuse was chiefly instrumental in arranging these conferences. Committees were appointed from the respective faculty and labor groups which met to discuss possible cooperation. Upon request of the labor committee tentative courses of study were prepared by faculty representatives, of which one in economics was adopted for the season. Responsibility for organization of a class, including the payment of instructor's fee, was assumed by the labor organization. Those enrolled were registered as students in the extension division of the university. Weekly sessions were held at the Labor Temple. Interest and attendance were maintained throughout the course, which continued during the spring term last year. At the conclusion of the season it was decided to continue similar effort this year with the addition of such other courses as might be feasible. A movement of this cooperative type once started has indefinite possibilities.

"THE recent death of William Hawley Smith has left the world poorer by a great personality," writes Edwin Osgood Grover. "Hundreds of thousands of teachers during the past forty years have had their eyes opened by his remarkable pedagogical story, 'The Evolution of Dodd.'" The writer also speaks of another of Mr. Smith's books, "All the Children of All the People."

REGARDING Dr. Sophie Bryant, who died in the Alps in August, the London *Times* says: "The tragic death of Dr. Sophie Bryant, the finding of whose body in the Alps is reported on the next page, has removed another of the small band of great women teachers who, often in face of much discouragement and opposition, have done so much for the education of women within the last fifty years."

A CAMPAIGN for raising $500,000 for erect-

ing new buildings for the Western Theological Seminary, Chicago, was launched at the general convention of the Protestant Episcopal Church at Portland, Oregon, this month.

Explaining his leadership in the campaign to raise $1,000,000 for the Episcopal Theological School in Cambridge, Mass., Bishop William Lawrence, of Massachusetts, said at the Portland convention: "I have accepted the duty of chairman because I am 72 years old and have known every student, teacher and officer of the school in its 56 years of history. I have been student, teacher and dean. I have had experience, too; have worked eight years with wage earners, nine years in Cambridge at this school and at Harvard; have been bishop of a large and thickly populated area for 29 years; and have traveled for the church throughout the country in peace and war. What is experience good for except to place it at the service of others and in the best cause?" "While the immediate goal of this campaign is $1,000,000," Bishop Lawrence explained, "the real purpose is that by the better equipment of the school she will do more effectively what her short history has proven she can do—turn out spiritual leaders."

To teach students how to understand the social forces that influence character, and to analyze problems that arise in social behavior, is the purpose of a new course to be offered on Thursday evening at the Boston University College of Liberal Arts, by Professor Ernest R. Groves, of Boston University.

Organization of the Georgetown University Endowment Association, for the purpose of raising a $5,000,000 fund in the next two years for expanding the institution in all its departments is announced by President John B. Creeden, S.J. With the national headquarters established under the chairmanship of Conde B. Pallen, of New York, the Georgetown Endowment Association is taking steps to form local committees in all the largest cities of the the United States. In connection with the movement, Dr. Pallen asserts that Georgetown has no intention of instituting a "drive," intending, instead, to conduct the work patiently among the thousands of Georgetown alumni and friends in every state of the Union. One of the objects in view is the ultimate grouping of all the departments, now scattered over the city of Washington, on the college site overlooking the Potomac River and commanding a fine view of the national capital.

An additional week in the school year is planned by the School Committee of Boston. At a recent meeting an order was introduced designating the Wednesday following the first Monday in September as the beginning of the year. For several years the schools have opened on the second Wednesday. The change is desired by the School Committee because the days lost out of the school year have reduced the service to 170.

The total registration at Harvard University this fall is 6,265, which breaks the previous attendance record of 6,073, registered last year.

The freshman class at Princeton is the largest in the history of the university, numbering 628 men. Of these, 526 were admitted without conditions. Practically all of the other 102 passed 14 entrance units. The total enrollment at Princeton is 2,184.

The first issue of *The Journal of Social Forces*, to appear bi-monthly, will be published in November. It is published by the University of North Carolina Press, and its editors are Howard W. Odum, E. C. Branson, Dudley D. Carroll, Jesse F. Steiner, and Harold D. Meyer. Among articles in the November issue are: "The Visiting Teacher," by E. C. Brooks; "The Southern Summer School for Rural Pastors," by Robert H. Ruff; and "A First Course in Sociology," by Lee Bidgood.

Announcement of thirty-four gifts aggregating $51,328.30 is made at Columbia University. There were nine gifts of $1,000 or more, including $15,135 through the Alumni Fund Committee, $12,000 from the Borden Company and $5,000 from Dwight W. Morrow.

The graduate school of education at Harvard University has begun its third year with an enrollment of 216 students, 152 men and 64 women.

Seven members of the medical faculty of the University of Strasbourg, Alsace, headed by Dr. Georges Weiss, dean of the school, are

making a tour of medical institutions in the United States as guests of the Rockefeller Foundation. The trip was suggested by Dr. Abraham Flexner, of the Rockefeller Institute, who visited the Strasbourg medical school last year. The physicians will go to Boston, Philadelphia, Baltimore, Washington, St. Louis, and Montreal, inspecting hospitals, colleges, and medical centers in those cities. They will return to Alsace by way of England, where similar studies will be made.

THE first issue of the *Harvard Business Review*, a new quarterly periodical edited by the faculty and students of the Harvard Business School, appeared October 14.

THE annual meeting of the College Entrance Examination Board for the election of officers and the transaction of other business will be held on Saturday, November 4, at 10:30 A.M. in the Trustees' Room, Columbia University.

THE inter-fraternity council of Dartmouth College has established a scholastic trophy, named in honor of Dr. W. A. Field, '54, to be awarded annually to the fraternity of the college maintaining the highest scholastic average during the year.

CORNELL UNIVERSITY will hold its first general alumni "home-coming" at Ithaca on Saturday, November 4, when alumni from all parts of the east are expected to attend a luncheon.

THE Princeton National Alumni Association will hold a meeting of western and middle western alumni in Chicago on October 27, when President Hibben will speak.

A CORRESPONDENT of the New York *Evening Post* states that of the 2,464 schools existing before the war in the Department of the Nord (one of the ten devastated) 2,337 have been reopened.

THE Chinese are themselves beginning to assume responsible leadership in the teaching of modern science and its application to medical education and problems of public health, according to a statement of the Rockefeller Foundation. The most recent Rockefeller gifts in China have been $125,000 each to the Southeastern University at Nanking and the Nankai College at Tientsin for science buildings and equipments. These gifts are intended for use in giving preliminary scientific educations to Chinese students. The appropriations of the Rockefeller Foundation have hitherto been strictly for the medical education of those who had already received premedical instruction. While the Chinese are beginning to attack for themselves the problem of training students in medicine, modern methods and knowledge in curing the sick and sanitation only exist to-day in a few centers, according to the report, which continues:

> In practically all countries it is recognized that even those hospitals which are not connected with medical schools have important educational functions to perform. This is particularly true of the hospitals in China. Besides training internes and nurses they provide opportunities for the continued employment of young doctors who need the facilities of the hospital and the friendly guidance of more experienced men if they are to continue their professional growth. Local medical associations in China have been little developed; there are no medical libraries except in the schools; and outside of a few large cities there is no systematic provision for stimulating professional intercourse between practicing physicians. Association with a good hospital can do much to compensate for these disadvantages, and thus conserve for future usefulness the men turned out by the schools.

SPECIAL CORRESPONDENCE

FILIPINO STUDENTS IN THE UNITED STATES

No longer does almost every advanced American student consider it necessary to go to Europe for study. In fact, the tide has set the other way, and ever increasing numbers of foreign students are coming to this country for educational purposes. In various fields of pure science, Europe still has distinct advantages over the United States, but when it comes to the application of scientific principles, this country can more than hold its own. If the influx of foreign students keeps on increasing at the present rate, Uncle Sam will literally soon be the "Schoolmaster of the World."

The influence of this movement is of intense significance. The presence of foreign students adds directly to the broadening influence of

whatever American university they attend and makes new points of contact for our own students. It makes for better personal understanding between American and foreigner and lessens the dangers of future international misunderstandings. It inclines the foreigners, upon their return, to continue purchasing American goods with which they have become familiar and which they have learned to appreciate while in this country.

The Institute of International Education has listed and classified 6,488 foreign students in colleges and universities of the United States, of whom 594 are Filipinos. There are, however, over 900 Filipino students of college rank in the United States, exclusive of hundreds of high school rank, and the apparent discrepancy in figures is due to the fact that replies were received from only 554 institutions out of 898 to which questionnaires were sent by the institute.

It is interesting to note that out of the 594 Filipino students listed 111 are studying engineering, 55 commerce, 45 agriculture, 45 medicine, 33 education, 30 law, 13 chemistry, 11 theology, and 183 are taking the liberal arts courses in order to secure a sound foundation for later professional courses. To find engineering, commerce, agriculture, medicine, education and law heading the list in the order named is a most encouraging sign of the tendency of the modern Filipino youth to take up those professions that mean most in the economic development of the islands.

DISTRIBUTION OF FOREIGN STUDENTS

Japan with about the same number of students in the United States has about the same number enrolled in liberal arts, only half as many in engineering, but four times as many in theology. Japan has only 34 enrolled in commerce as compared with 55 from the Philippines but has 23 in dentistry as compared with 5 from the islands.

China with twice as many students as the Philippines has about the same proportion studying engineering, three times as many in commerce, four times as many in chemistry, but less than half as many in agriculture, education, medicine and law.

Among the foreign students listed, the largest enrollments from different countries are as follows:

China	1,249
Philippines	594
Japan	592
Canada	516
Russia	350
Mexico	244
Porto Rico	195
India	189
South Africa	140
Cuba	143
England	137
France	127

PHILIPPINE GOVERNMENT STUDENTS

The great majority of the Filipino students are working their way through colleges and universities, but the Philippine government maintains 150 students in the United States. In the selection of these students, sheer intellectual ability does not have as much weight as demonstrated interest and ability in some special field. Each government student contracts to serve the government one and one half years for each year of his scholarship, at the regular rate of compensation for such service. This system has worked out very well and it is surprising to note how many important places in the Philippine government are already held by former government students.

DOCTORATES

The highest degrees secured in 1921-22 by fellows and government students from the University of the Philippines consisted of four doctorates in philosophy by Leopoldo B. Uichanco from Harvard, Encarnacion Alzona from Columbia, Francisco O. Santos from Yale, and Francisco M. Fronda from Cornell, and one doctorate in science by Valente Villegas from Iowa State College of Agriculture. Dr. L. B. Uichanco specialized in zoology, Dr. Encarnacion Alzona in history, Dr. F. O. Santos in physiological chemistry, and Drs. F. M. Fronda and V. Villegas in animal husbandry.

Two degrees of doctor of public health were granted to pensionados by Johns Hopkins University. These degrees represent two years' post-graduate work in medicine. The recipients were Dr. Regino G. Padua and Dr. Rafae

Abriol, from the Bureau of Health and Quarantine Service respectively.

THE FIRST FILIPINO WOMAN PH.D.

To Miss Encarnacion Alzona goes the distinguished honor of being the first Filipino woman to receive the degree of doctor of philosophy. Miss Alzona is a product of the public schools and of the university which our country helped to organize in the Philippines. She took her graduate work in history in this country at Chicago University, Harvard and Columbia. Her major work was in modern European history and her thesis title was "Some French Contemporary Opinions of the Russian Revolution of 1905."

Miss Alzona has published articles in Manila journals on the teaching of history, on woman's suffrage, and on popular legends of foreign derivation. She is now assistant professor of history in the University of the Philippines. Her achievements not only indicate the fallacy of questioning the mental capacity of the Filipino people, but even more strikingly exemplify the great advance made by Filipino women during the past twenty-four years of American administration and increasing Filipino autonomy. Even under Spanish rule, the Filipino woman held a remarkably high place in society in comparison with her Oriental sisters of China, Japan and India, but it took American ideas to remove the restraints of Spanish culture and to allow women practically the same opportunities as men.

Before going to Harvard Dr. Uichanco was graduated from the College of Agriculture, University of the Philippines, where he was an instructor in economic entomology and editor-in-chief of the college magazine when appointed to a government fellowship in the United States in 1919. The thesis title for his doctorate was "Reproduction, Embryogeny, and Postnatal Development of Aphids." In addition to his editorial work for the *Philippine Agriculturist*, he made valuable contributions to the *Philippine Journal of Science* and to *Psyche*. He has returned to the islands and is again on the staff of the College of Agriculture.

Dr. W. M. Wheeler, dean of Bussey Institution, Harvard University, reported concerning Dr. L. B. Uichanco's work: "He revealed unusual powers as an investigator and carried to completion an important piece of research into the embryology of plant lice, an extremely difficult subject. When published, his thesis will rank among the few outstanding contributions to our knowledge of the early development of these insects and especially of the method of infection of the aphids with symbiotic organisms."

Dr. F. O. Santos completed his undergraduate work in the public schools of the islands and the University of the Philippines, where he was serving as an instructor when sent to this country to study physiological chemistry at the University of Minnesota, Columbia, Cornell Medical School and Yale. He has contributed to the *Philippine Journal of Science* and to the *American Journal of Physiology* in addition to preparing his thesis on "Study of the Nutrition of the Filipinos." Concerning his work, Dr. LaFayette B. Mendel states that "his preparation for advanced work had been unusually good, so that he was better able than most foreign-born workers to engage in the sort of studies advised for him here."

AGRICULTURE

Agriculture is, of course, the basis of all economic progress in the Philippines and in this connection it is interesting to note that two of the doctorates secured by Filipino students were granted for advanced work done in poultry and animal husbandry, thus refuting, in a way, the rather general opinion that success in politics is the goal of every ambitious Filipino. Both Drs. Villegas and Fronda are now teaching in the College of Agriculture at Los Banos, P. I.

Dr. Francisco M. Fronda took his postgraduate work at Cornell, where he prepared his thesis on "Temperature Studies in Poultry," in addition to publishing several articles on poultry feeding.

Dr. Valente E. Villegas pursued his advanced studies in animal husbandry principally at Iowa State College. His thesis was on "The Principles and Practices Involved in the Breeding, Feeding and Management of Pure Bred Draft Horses in the United States," and was the most comprehensive one ever

written at Ames. Concerning this thesis, Professor A. B. Caine states that it is a complete compilation of the practices of horsemen in the United States and of great value to horse-breeders in this country and that Dr. Villegas had an opportunity to study carefully the methods of work in the Philippines as well.

HEALTH

Two physicians, graduates of the Philippine Medical School, were sent to this country in 1919 for advanced study in public health service. Dr. Rufino Padua had secured his degree of doctor of tropical medicine before leaving Manila, where he had served as instructor in surgery in the Philippine Medical School and as regimental surgeon in the First Philippine Division of the U. S. Army upon the federalization of the Philippine National Guard. At Johns Hopkins, he completed the course for doctor of public health. Before reaching Manila, he spent some time in studying the leprosy situation in Hawaii. He is now connected with the Philippine Bureau of Public Health.

Dr. Rufino Abriol also had his degree of doctor of tropical medicine from the University of the Philippines, although his M.D. had been previously secured at the University of Illinois. Before leaving the islands, Dr. Abriol was connected with the United States Quarantine Service at Manila. Upon returning to this country in 1919 he was detailed at the United State Quarantine Offices at San Francisco, Boston, Philadelphia and Baltimore and at the immigration offices at Angel Island and Ellis Island. After practical experience at these stations, he studied at Johns Hopkins, where he secured the degree of doctor of public health, his thesis being written on "Correlation of Death Rates from Certain Diseases with Certain Economic Factors in the Philippines." He is now again with the U. S. Quarantine Service at Manila.

HONORS

In academic circles, the highest honor, admission to Phi Beta Kappa, was won this year by Valentin D. Acebron and Celedonio Salvador, while Manuel L. Carreon and Florentino Cayco gained such recognition earlier.

Among the pensionados honored by membership in Sigma Xi are Leopoldo A. Faustino, Francisco O. Santos, Dr. Juan C. Nanagas, Jose K. Santos, Joaquin Maranon, Toribio Vibar, Pilar P. Herrera, Francisco Quisumbing, Francisco M. Fronda and Faustino Q. Otanes. A number of these pensionados have had their scientific articles published.

Fernando V. Bermejo won a $500 fellowship in the University of Kansas. Prudencio Esquivel held the McGraw Fellowship in Civil Engineering at Cornell University. Sixto Laraya graduated among the first five in his class of seventy-five. Constancio Rusila secured honors in zoology at Chicago University. Venancio Trinidad won first place in a state oratorical contest and second place in the inter-state contest. Dr. Juan C. Nanagas was honored by being offered an assistant professorship in anatomy in the University of Minnesota.

MASTER'S DEGREES

From the Bureau of Education, Fernando V. Bermejo, Florentino Cayco and Fortunato de Veyra received the degrees of master of arts in education and diplomas for superintendent of schools from Columbia; Prudencio Langcauon, Estanislao R. Lopes, Geronimo Sura, Juanito Maramara, and Ceferino Purisima are now masters of education from Harvard; Sabino Ami and Doroteo M. Flores are masters of science in agriculture from Iowa State College of Agriculture, and Pedro Montellano holds the same degree from Wisconsin. From the University of the Philippines Telesforo Tianzo is master of science in mathematics from Chicago, Eliseo Quirino is master of science in journalism from Columbia, Jose K. Santos is master of science in botany from Chicago, and Marcelo Tangco is master of arts from Harvard. From the Bureau of Agriculture, Marcos M. Alicante and Faustino Q. Otanes are both masters of science in agriculture from the University of Illinois. Mariano Concepcion of the Bureau of Commerce and Industry is now master of science in commerce from Columbia, while Cornelio Balmaceda from the same bureau is master of business administration from Harvard.

BACHELOR'S DEGREES

A large number of bachelor's degrees were also secured. From the Bureau of Education

Pedro Ablan, Serafin Aquino and Pedro Villanueva are bachelors in physical education, the first two from Springfield College and the third from Chicago Training College; Valentin D. Arebron is bachelor of arts from Hamilton College, Venancio Trinidad from Iowa State Teachers College, Esteban R. Abada from Michigan and Celedonio Salvador from Indiana; Fortunato M. Sevilla is bachelor of education from Chicago, Gregorio Lardizabal is bachelor of education from Columbia and Ricardo Ortega and Antonio F. Ascano are bachelors of philosophy from Wisconsin. Juan Congreng from the Bureau of Audits was graduated from the Wharton School of Finance, University of Pennsylvania, with the degree of bachelor of science in economics, while Mariano Dulay of the same bureau was graduated in commerce from Northwestern. From the Constabulary, Vicente L. Torres and Adriano Valdes were graduated from the Pennsylvania Military College with military science as their majors and engineering and chemistry as their respective minors. From the Bureau of Forestry, Florencio Tamesis and Felipe R. Amo graduated in forestry from the University of Washington and Sixto Laraya from the University of Montana. Carlos K. Burgos from the Bureau of Agriculture received his bachelor of science in agriculture from Wisconsin. Constancio Rustia, a university pensionado, is now a bachelor of science from Chicago University, Abdon Llorente from the office of the Secretary of Finance is bachelor of science in commerce from Columbia, Isaac V. Lasco from the Department of Justice is bachelor of library science from the University of Illinois, while Bernardino Guerrero completed the course in civil engineering at the University of Nebraska.

W. W. MARQUARDT
PHILIPPINE EDUCATIONAL AGENCY

DISCUSSION

PROFESSOR RUSK ON DR. BAGLEY AND "EDUCATIONAL DETERMINISM"

In Professor Bagley's article on "Educational Determinism" which appeared in an April issue of this journal he quoted the *Highway*, which quoted the *Pall Mall Gazette*, which misquoted or misinterpreted what I said in a lecture on "The Supernormal Child" in London in January. Any further reply to the personal reference in his article is unnecessary, but on the wider issues a word is advisable.

Professor Bagley's attack on those whom for his own purpose he designates "determinists," is but one more chapter in the old educational quarrel between initial inequality and initial inequality, between the views that the influence of education is limited and that it is unlimited, and he comes by his selection of instances of inspired teachers and exceptional pupils perilously near setting all teachers the task of making a silver purse out of a sow's ear. His fear that the developments of mental testing threaten the entire theory and practice of democratic education argues a misunderstanding of mental testing or the ideals of democratic education or of both. It will indeed be a sad day for democracy when democratic ideals are incompatible with scientific progress. It is not the democratic but the conservative like Plato with his caste system of education that lives in constant dread of innovations in education.

Democratic education in my opinion demands that each child should receive the education by which he can most benefit irrespective of his social position, and mental testing, as I understand it, is contributing to the attainment of this end. Democratic education does not surely demand, as any one wilfully misinterpreting Professor Bagley's article might conclude, that every mentally defective child should be subjected to a university training. That there are differences in mental abilities and that these set limits to the influence of education, have always been recognized by practical teachers, whatever a professor of education for the sake of argument avers. All that the mental testers have done is to give precision to these differences by expressing them in percentages. By the use of mental tests, in addition to the usual scholastic tests, they have broadened the basis of selection of pupils for secondary (*i. e.*, high school) education, thus affording children who have not had the best early educational opportunities a chance of displaying their abilities—surely not an undemocratic proceeding. By segregating children of the lower

mental grades who are not benefiting by ordinary schooling and suggesting that a more practical type of education should be afforded them, the mental testers in this country are hoping to give such children a chance of developing self-respect. In suggesting that their education should be of an extensive rather than of an intensive type[1] the writer has evidently anticipated Professor Bagley. What the length of the school life should be, is a matter dictated by social, *i. e.*, political and economic, considerations; at present in Scotland the leaving age is fourteen, and according to a recent act not yet enforced, fifteen, so that in maintaining that certain children can not benefit by the mathematical and linguistic courses of a secondary school the mental testers in Scotland do not thereby imply that these pupils should have no further education after the age of twelve; they merely advocate that these pupils should have an education which will be a benefit to themselves and to the community.

The democratic ideal in education is evidently by some educationists conceived to be merely the old aristocratic ideal generalized. To generalize a proposed course of action is, as Kant has taught us, a test of its validity, but to remove the exclusiveness of a wrong type of education does not make it right. Democracy must work out its own educational salvation and its own educational aims, and some of its defenders with but little faith are not democratic enough to recognize that culture and opportunities for self-realization are not restricted to classics and the higher mathematics; from their lofty standpoint they look with pity on the hewers of wood and drawers of water praying for the day when these labors will be performed by a pure act of thought: meanwhile the true democrat recognizes that in a democratic community all, whatever their I.Q.'s, should be hewers of woods, although some may be hewing it from the tree of knowledge.

ROBERT R. RUSK

UNIVERSITY OF ST. ANDREWS,
SCOTLAND

[1] P. 26 of abstract of lecture on "The Supernormal Child" in *The Child-Study Year Book* for 1921.

EDUCATIONAL RESEARCH AND STATISTICS

THE RELATION BETWEEN COLLEGE FAILURES AND MENTAL TESTS

IT is well known that not all students who make a low score in the intelligence tests fail in their studies and, conversely, some students who do poor work in college make a high score in the intelligence test. The present paper aims to show some relationships between failures in college work and the degree of success in the intelligence test, and likewise between the lowest 10 percentile in the test and degree of success in college work. The chief motive in the paper is the desirability of correlating college work and mental tests in the lowest 10 percentile on the basis of the test in order to eliminate or readjust probable failures early in the course.

Two intelligence tests were used as a basis of these comparisons, namely, the Thorndike Intelligence Test and the present writer's Graded Intelligence Test for High Schools and Colleges. These tests were given to 306 freshmen in the State University of Montana in October, 1919. The Thorndike Test was given on a Tuesday morning, and required three and one half hours. The Graded Test was given Thursday of the same week, and required 40 minutes. The Graded Test consists of a battery of 14 group tests so weighted as to aggregate 249 points. As shown in the following tables (Tables 1 and 2) the Graded Test yielded a high correlation with the Thorndike Test, but a slightly lower correlation with the scholarship index than does the Thorndike Test.

TABLE 1

Comparison of the Maximum, Minimum and Median Scores in the Thorndike and Graded Tests.

	Thorndike	Graded
Maximum score	103	206
Minimum score	18	61
Median score	65	127
Number tested	303	306

TABLE 2

The coefficient of correlation between the Graded Test and Thorndike Test ..... r. .82 P.E. .012

Graded Test and scholarship Index ..... r. .36 P.E. .029
Thorndike Test and scholarship index ..... r. .46 P.E. .024

The scholarship index is the ratio of the grade points to the number of credit hours for which the student is registered. The grade points are determined in the following manner: Grades are reported on a six-group basis, A, B, C, D, E, F, F being failure and E condition. To these letters are assigned the following arbitrary values: A, 3; B, 2; C, 1; D, 0; E, —1; F, —2. An example will make clear the method. Student J is registered for 15 hours in three courses of five hours each. In one course he receives a grade of C, in another, D, and in the third, F. His grade points for the first course are therefore 5, for the second, 0, and for the third, —10, or a total of —5 for the three courses. The scholarship index equals the quotient of —5 divided by 15, or .33. If the above grades had been A, B and C, respectively, the grade points would have been 15, 10 and 5, or a total of 30, which divided by 15 would give 2 as the scholarship index.

Twenty-six, or 8.5 per cent., of the freshman class failed to make a passing grade for the year. This does not include those who dropped out during the year nor the special and unclassified students. As Table 3 shows, 12 of the 26 failures are found in the fourth or lowest quartile, according to the Graded Intelligence Test. Five are found in the third quartile, 7 in the second, and 2 in the first. According to the Thorndike Test 14 of the 26 are in the fourth quartile, 7 in the third, 2 in the second, and 3 in the first. Twelve cases, or 46 per cent., are in the lowest quartile in both tests.

TABLE 3

	Graded Test			Thorndike Test		
	M.	W.	T.	M.	W.	T.
First Quartile	0	2	2	1	2	3
Second Quartile	4	3	7	2	0	2
Third Quartile	5	0	5	5	2	7
Fourth Quartile	6	6	12	7	7	14
	15	11	26	15	11	26

It will be seen further from this table that 17, or 65 per cent., of failures are below the median for the Graded Test, and that 21, or 81 per cent., are below the median for the Thorndike Test.

As regards sex differences, 15 men and 11 women failed. The same number of men and women are found in the lowest quartile according to both tests. There are more men than women in the second and third quartiles, but more women than men in the first quartile. Owing to the small number of cases these distributions are not significant. The significant thing is that, although failures in scholarship are found in all four quartiles in both intelligence tests, approximately half of those who failed in scholarship virtually failed in the intelligence tests.

If now we consider the distribution according to scholarship of those falling into the lowest 10 percentile on the basis of the test, we find 31, or 10 per cent., according to the Graded Test and 30, or 9.8 per cent., according to the Thorndike Test. For the purpose of comparison between the test and the scholarship index, the entire group referred to above is divided into five sub-groups ranging from best to poorest both with respect to the lowest 10 percentile on the basis of the test and with respect to the lowest 10 percentile on the basis of the scholarship index. The group is also divided with reference to sex. These various divisions are represented in Tables 4 and 5. Table 4 represents the Graded Test and Table 5 the Thorndike Test.

TABLE 4

Distribution of 31 freshmen who were in the lowest 10 percentile in the Graded Test. The vertical columns represent the distribution on the basis of scholarship. The horizontal lines represent the distribution into five sub-groups on the basis of the lowest 10 percentile in the test. In both distributions A represents the highest score of the group under consideration.

Men						Women				
E	D	C	B	A		E	D	C	B	A
....	....	....	....	....	A	....	....	....	....	....
....	....	....	....	....	B	....	....	....	....	....
....	....	....	....	....	C	....	....	1	1	....
1	1	1	2	2	D	2	1	1	2	3
1	....	....	1	....	E	1	1	....	1	....
1	2	2	1	1	F	....	1	1	....	....

TABLE 5

Distribution in a similar manner as in Table 4 of 30 freshmen who were in the lowest 10 percentile in the Thorndike Test.

Men						Women				
E	D	C	B	A		E	D	C	B	A
....	....	....	....	....	A	....	....	....	....	....
....	....	....	....	....	B	....	....	....	....	....
....	....	....	....	....	C	....	1	....	....	1
1	....	2	1	3	D	1	1	3	2	2
....	1	1	....	....	E	1	1	1	....	....
2	2	1	1	....	F	1	....	1	....	....

As is shown by both of the above tables, only 2 of the 30 or 31 cases falling into the lowest 10 percentile according to the tests rank above D, a just passing mark, in scholarship, and only 16 in either group received a grade of D. In other words, nearly half of those falling into the lowest 10 percentile on the basis of either test failed to make a passing grade.

Further investigation of this group revealed the fact that of the 26 who failed in 1919-20, only 6 returned in 1920-21. Of these 2 remained only during the first or autumn quarter, having failed in that quarter. Two remained two quarters and made a grade of C. One of these returned in 1921-22 and made a grade of B in the autumn quarter. Grades for the winter quarter have not yet been received (February, 1922). One of those who returned in 1920-21 remained through the year, making a grade of C. The other has remained to the present, making a grade of D in 1920-21 and B in the autumn quarter of 1921-22.

Thus it will be seen that of the 26 who failed in 1919-20 only one has remained in the State University of Montana to the present time. Of the six who returned, however, it will be noted that four made a passing or better than passing grade during the time spent in the university. We have no record of those who did not return.

After making allowance for the imperfection of the group method of testing and of the inadequacy of a single test to determine ability or lack of ability to succeed in college work, the results presented in this brief study tend to show that the group test may be used as one instrument for aiding in the early discovery and weeding out of the obviously unfit. Something may also be said in favor of the group test as an important step in the discovery of the superior student, but perhaps the negative application of the test is of greater importance than its positive use at the present time.

Franklin O. Smith
State University of Montata

SUMMER PLAY SCHOOLS IN NEW YORK CITY

Next to sending the children of congested New York out into the open country the happiest place for them in summer seems to be unquestionably the play schools as they are conducted by the special committee of the Federation for Child Study. The sole object of these is to bring as much joy and wholesome development into the lives of part of the city's underprivileged as is possible with whatever funds are provided for the season. And to see whether they succeed one has only to observe the children.

Play schools specialize in fun, food and roof playgrounds. In an effort to bring relief to hundreds of little people who wilt each summer or sit listlessly amid the heat and putridity of the crowded streets, the committee transformed roofs of certain centers into oases of comfort and content. Then they lifted as many children as they could accommodate high out of their unsavory surroundings, out of the grime and odor of stale food into the freshness of pure air and sunshine, clear skies and blooming flower boxes. Here the children arrive before nine and remain until about half past four, after the heat of the day has usually passed.

For pupils who need special care there was skilled service which could not be supplied at home: a daily weighing, specially prepared food and whatever else seemed necessary to bring them up to normal. But instead of segregating the subnormal children they were encouraged to play in moderation with the rest, so far as possible, to laugh and do the happy, natural things the normal ones do, and so forget that they are designated as "cardiac," "health children," "undernourished," and so on.

Greenwich House roof was a rollicking place when we inspected it last August, with rosy-

checked youngsters tumbling down a slide, and others with wind-tossed hair busy over the sandpile. One of the youngest of these, a brown-eyed baby of four, her tiny ears pierced with gold earings, welcomed me with true Italian warmth by throwing her arms about my skirt and clutching me tightly. Following her lead came another tot, somewhat diffidently at first, but with evident desire to be friendly. It was a little thing, perhaps, but significant. For unhappy children do not give out so readily to strangers, and with such confidence. It seemed typical of the whole spirit of the place as it had appeared thus far.

The next play school visited was in the heart of the Ghetto. Going through narrow streets lined with pushcarts tended by bearded men or women in shawls, their shops labelled in Yiddish, doorsteps cluttered with refuse bags and sprawling children, we arrived at Beth-Israel Hospital, 70 Jefferson Street. Here have been found accommodations for a small part of the summer work. The roof offered a pleasing contrast to the scene below, for a rush of cool air from somewhere greeted us as we stepped out. It came from the East River which seems to flow just below the hospital when one is on the roof, for the graceful framework of Manhattan Bridge rises majestically but a stone's throw away.

Two bright nasturtium beds, thriving under the care of junior gardeners, brought life and color to the city barrenness and a touch of country into the lives which had seen none of it. Under the protecting shade of the awnings, which are a part of all the roof equipment, a few rested on folding cots as others swung gently to and fro.

It is a very different sort of environment which surrounds the New York Infirmary, 321 East Fifteenth Street, which welcomed the play school for the first time this summer by giving full use of a covered roof. There are no unsightly rubbish heaps or over-ripe fruit stands near the immaculate hospital, but children from places where they exist were brought daily to enjoy the comfort of right living on Fifteenth Street. When the idea of inviting the play schools was proposed one stumbling-block rose in the lack of lunch-room facilities. The Stuyvesant High School is next door, and Dr. Simon Hirsdansky, the director of the Play School Committee of the Federation, saw a way, as he always does. He obtained the use of one kitchen and lunchroom of the great school for the thirty small charges, and the thing was done.

The art of stringing colored wooden beads on shoelaces and making necklaces of them was so fascinating an occupation that we created scarcely a ripple of interest when we arrived at the Infirmary roof. But before we could leave, five year old Joseph, the class songster, spied us and recognized a new audience for his latest acquisition. You may feel sure that you could never again be entertained by "Pack Up Your Troubles in Your Old Kit Bag," but you have not heard five year old Joseph, with a khaki soldier's cap set jauntily on the side and with graveyard severity, sing it as though his life depended upon the speed with which he got through.

With a public playground directly opposite the Hudson Guild Settlement at 436 West Twenty-seventh Street, the summer school needs no roof accommodations, and they are rarely resorted to.

A verdant sweep of beautiful Central Park makes the Ethical Culture play school roof, at 33 Central Park West, the finest of the nine in New York City, and the headquarters of the schools. For those most in need of outdoor life canvas cots were in constant use, while others spent a part of their day in this restful spot, sleeping or in quiet play. Sleep was a regular feature of the play school program, and came directly after the plentiful lunch.

Life was not all idle at the play schools, despite the time for relaxation, as the exhibit of work at the Ethical Culture School showed. There were tables filled with every variety of thing a child can be expected to make successfully, and things unexpected, such as neat cobblery by the girls and good cooking by the boys. Fourteen ways of preparing potatoes were shown at the booth of Emanuel Sisterhood, the school where the chefs of Delmonico's, the Waldorf-Astoria and the Ritz-Carlton tested and awarded prizes for culinary accomplishment.

There was also a captivating five-room doll-

size apartment, laid out in railroad fashion just like those the children live in, with an air-shaft, dumb-waiter and all, fitted out to the minutest detail by the children themselves. And as they worked out these fine points, such as plumbing, kitchen arrangements, lighting, and so on, they found out why a little thought lends improvement to every home. There were dozens of gingham aprons and dresses, babies' bibs and rompers, boats and airplanes, wheelbarrows and stools, art jewelry and stencils—a brave array on the side of industry. It is surprising how much can be done in a few weeks' time, and so happily. For discipline practically takes care of itself in these schools, where interest in the work is so strong that there is no reason to stop and waste time being troublesome. And then, there is always something interesting to look forward to, such as lunch.

"I like all the subjects we have," wrote happy Tommy to Mrs. Fred M. Stein, the chairman of the committee of the Federation for Child Study, "but the subject I like most is lunch."

A peep into the dining-room was an unforgetable sight. The one at the Ethical Culture School, on the top floor, was all blue and sunshiney, with a vista of sky and fleecy clouds through each long window, and gay delft blue and gray panels within. The tables were crisply fresh in blue and while oil cloth sets, their borders of clowns and elephants stamped with wood blocks of their children's own making. Flowers gathered by an out-of-town friend were arranged in gay pottery bowls, which were patted and thumbed into shape by the same little hands.

"Joe and I are leaders this week," announced Milly, as she took her place at the foot of the table with dignity befitting that office. The other six obediently seated themselves on the side. For tables of eight constitute a family group, with a head and foot presiding. Joe served generously from the steaming bowl which was placed before him, and Milly, standing at his right, distributed the plates to their eager recipients.

Up at Public School 4, in the Bronx, which overlooks unbroken moors of open country, was another dining-room to be proud of. It was creamy white from ceiling to floor covering, with stencilled muslin curtains and bright flowers to furnish the color note. It was through the cooperation of the neighborhood mothers, known as the Children's Welfare League, with Mr. Hirsdansky, who is principal there, that the prettiest lunchroom in any city public school was made possible. Children from lower sections of New York were transported to this exceptional school, with its swimming pools, its acres of play space about, its well equipped gymnasiums and classrooms, by three motor buses furnished by the Board of Education.

Each center raises funds to cover its summer expenses, exclusive of the general costs of directors and supervisors which the Federation provides.

Cooperation is the keynote of the success of the play school movement, which is growing so rapidly here. Through it the committee accomplishes double the work it could on its funds, and gains many more friends in the bargain. The Board of Education furnishes teachers, the use of several schools, the motor busses and some equipment; the city opens the playgrounds, the Department of Welfare and the Interborough Rapid Transit Company supply passes for transportation to the parks; the Westchester League of Community Workers, an organization formed during the war, delivers several trucks of fresh vegetables to the Central Kitchen weekly, free of charge; the Dairymen's League cooperates in giving milk and many manufacturers have given tooth paste and other accessories when they found out the work which was being done. The Child Health Organization takes a special interest and sends its "Health Fairy" upon request to entertain the children.

Let us have more of these play schools which are so well begun. The crowded cities need them first, where to thousands of children a summer outing is an unknown experience. But they are practical in the smaller towns as well, for everybody knows that children are happiest when they know what to do with their vacation hours.

MARY GILPIN ARMSTRONG
NEW YORK CITY